Research Study Observation: NYU Engage

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User Research Methods, Section 002

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Introduction

NYU Engage is an app designed to enhance community building among NYU students by providing a platform for discovering and engaging with a wide range of opportunities. With over 800 active clubs and organizations and 300+ active student clubs open to all students, as well as clubs exclusive to specific schools or academic programs, NYU Engage aims to cater to the diverse interests of the student body. The application seeks to address the challenge students face in finding and integrating into communities, thereby improving the overall student experience at NYU.

Research Questions

This research is motivated by the need to evaluate the effectiveness of NYU Engage in facilitating community building and engagement among students. The client for this research is the NYU Engage development team, and the target audience includes NYU students and university administrators. The results will be used to inform future design and development decisions for the application. The research questions being addressed are:

> 1. How do students perceive the *usability and effectiveness* of NYU Engage in facilitating discovery and engagement with clubs and organizations? What and where are some difficulties in the process? What features are helpful?
>
> 2. What features of NYU Engage do students find *most valuable* for discovering and joining clubs and organizations?
>
> 3. What *challenges* do students face when using NYU Engage to connect with clubs and organizations that align with their interests and academic goals?

Method

Design

The research method for this study implemented is the semi-structured qualitative observation test focusing on the interaction of the participant with NYU Engage. Participant observation, as the main research method for this study, is suitable for capturing spontaneous user behavior and feedback, in order to evaluate the app's usability and effectiveness in facilitating community building and students' attentiveness.

Target Audience: NYU Students looking to start or join online NYU communities, or find clubs, organizations, and events.

Data Collection: The research will focus on measuring user satisfaction, usability for finding designated resources, and engagement levels. See the below chart for the specific data collection on each research question:

Research Question	Data Categories
How do students perceive the usability and effectiveness of NYU Engage in facilitating discovery and engagement with clubs and organizations? What and where are some difficulties in the process? What features are helpful?	User feedback during the navigation process, time on discovering and approaching the app destination. Specific difficulties encountered during the discovery and engagement process on finding relevant clubs, understanding club descriptions, and looking for community events. Features that users find helpful in facilitating discovery and engagement such as the search filter.
What features of NYU Engage do students find most valuable for discovering and joining clubs and organizations?	Frequency of use of different features for discovering and joining clubs. User suggestions for additional features or improvements to existing ones.
What challenges do students face when using NYU Engage to connect with clubs and organizations that align with their interests and academic goals?	Specific challenges in finding clubs, user's questions and hesitations, attitudes and questions on specific tasks or steps.

Setting: The study takes place in the NYU study room and is recorded.
Instruments/Measures: The data will be collected on a digital observation form.

Personas

Here are three different personas featuring NYU student users for NYU Engage:

Name: Alex	Goals:
Demographics:	Find and join clubs that host a lot of social events and offer networking opportunities.

Age: 21 Major: Psychology Grade/Class: Junior	Looks for clubs focused on mental health advocacy to align with his academic interests.
Interests: Social events, networking, mental health advocacy	**Challenges:** Alex feels overwhelmed by the number of options available and struggles to find clubs that match his specific interests. Alex struggles to balance his time between academic commitments and club activities.

Name: Amy	**Goals:**
Demographics: Age: 24 Major: Computer Science Grade/Class: Master 1st-year	Looks for clubs that offer coding workshops and participate in academic competitions to enhance her technical skills and academic profile. Seeks to build a professional network by connecting with club members who share similar career interests.
Interests: Coding, tech workshops, academic competitions	**Challenges:** Amy finds it difficult to identify clubs that offer advanced technical workshops and opportunities for competitive participation in her field of study. Amy has difficulty finding clubs that offer mentorship or guidance for academic and career development.

Name: Taylor	**Goals:**
Demographics:	

Age: 22 Major: Environmental Studies Grade/Class: Senior	Looks for clubs focusing on environmental activism and community service, especially those working on sustainability projects. Looks for clubs and network with people who have similar hobbies or interests in badminton or card games to make more friends.
Interests: Environmental activism, community service, sustainability projects, badminton, card games	**Challenges:** Taylor is looking for clubs with a strong impact on the community but finds it hard to assess the effectiveness and engagement level of different clubs through the app. She also struggles to stay in the same club because of her limited time to join events and the various group dynamics in different clubs require her to take more time to settle in.

Participants

The study will involve one participant who is an NYU Steinhardt student, currently in his/her first year of a master's degree on LTXD major. She previously had some experience in NYU-suite platforms and apps and events-related apps such as Google Calendar and Eventbrite.

Instruments & Measures

Observation Form: https://miro.com/app/board/uXjVNou2lJs=/?share_link_id=110856686978

Procedure

Time (in minutes)	Task
Before the session starts	1. Prepare the recording device and inform the purpose of the test to the participant. 2. Inform the participant about the recording equipment, clarifying that it is used exclusively for the analysis of

	the study to maintain transparency and secure informed consent. 3. Have the participant logged into NYU Mobile. 4. Encourage the participant to think aloud.
1'	1. Initiate task 1: Browse the platform and familiarize yourself. Try to find events and organizations that you are interested in.
2'- 5'	1. Engage with the participant, while mainly writing notes and ask how he/she feels or uses the app. 2. Take notes on his/her emotional responses at various stages of the interaction.
6' - 9'	1. Initiate task 2: Find and explore organizations under Professional Development. See how to attend and RSVP for an event. 2. Engage with the participant, while mainly writing notes and ask how he/she feels or uses the app. 3. Take notes on his/her emotional responses at various stages of the interaction.
10' End of the session	1. Ask about his/her overall experience of the app, while taking notes. 2. "What is your most favorite part of the app?" 3. "What is your least favorite part of the app? Or what do you dislike about the app?" 4. "In a scale of 4, 0 as not like the app at all, and 4 as really like the app and will going to use it, what is your rating?" 5. Thanks for the participant for volunteering.

Data Analysis Plan

1. Refer back to the recordings and fill gaps of any missing information.
2. Note the transition of emotions of the participant in different observation stages. Create a timeline of the participant's emotional changes throughout the engagement with the app.
3. Note key behaviors such as navigation paths, feature usage, and moments of difficulty, the observer will highlight common experiences among participants. Analyze navigation

paths and feature usage in depth, identifying any recurring behaviors or sequences that suggest a pattern.

4. Analyze navigation paths and feature usage in depth, identifying any recurring behaviors or sequences that suggest a pattern.
5. Identify and analyze instances where the participant experienced significant satisfaction or frustration.
6. Reference observational data with other forms of feedback after the observation session, such as user interviews or surveys.
7. Use an affinity diagram to organize keywords and group the data by themes and categories.
8. Provide a written analysis report including findings, issues, and recommendations based on the research questions.

Data Analysis and Findings

The completed observation form is shown below:

Note Taking and Categorization

The researcher, during the observation, sat aside with the participant, took notes and observed any confusion, suggestion, or immediate comments from the participant. Also, after the observation session was finished, the researcher referred back to both the screen recording and

Zoom chat recording to add any missed details that are worth noticing based on the research questions.

Referring back to the observation form, the researcher used an affinity diagram to categorize the issues under three main categories: features, information, and usability / general UI function.

Under each category, the researcher also divided issues into subcategories such as categories, activity descriptions, keyword searches, and organizations in the underline, making the key content in bold to help the potential stakeholders or designers understand and recognize effectively.
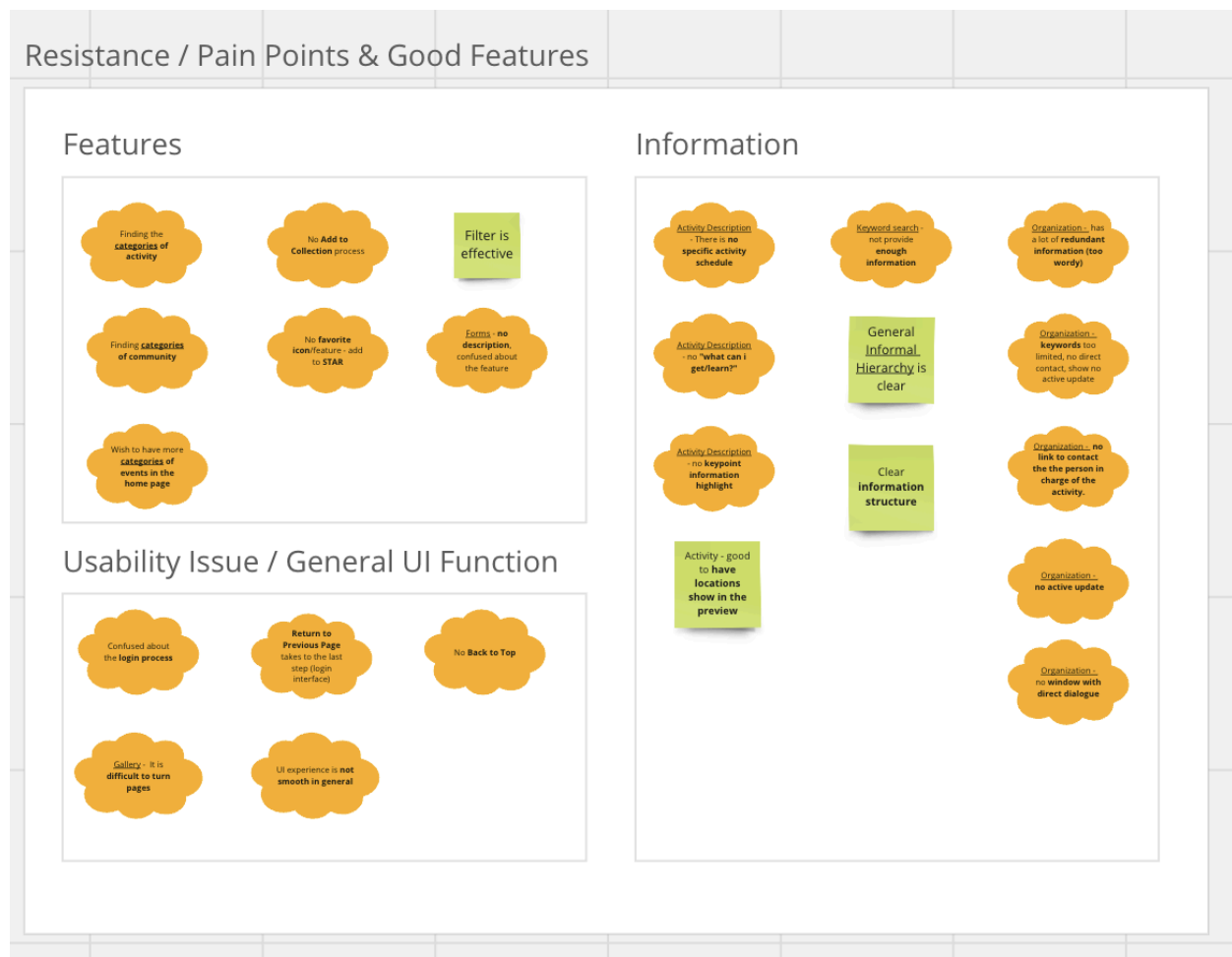
Findings

After examining the affinity diagram, given the initial research questions, some findings and areas for improvement gradually surfaced:

Usability and Effectiveness

One of the most important findings app is related to usability and the effectiveness of use of NYU Engage. The participant was struggling and was confused by navigating through the app.

1. Too Much Functionality that Requires Login

   The participant was required to log in using NYU Mobile from the beginning. However, when accessing NYU Engage within NYU Mobile, the participant was prompted to log in again to view personal notifications and communities they had joined. As a result, the initial login process lasted approximately 1 minute, which could potentially decrease the participant's interest in continuing to use the app.

   Recommendation on Usability Revisement: Delete the login process in NYU Engage

2. The < for Go Back Skips to the Last Step Rather Than Last Page

   The participant encountered issues with using the "going back" icon. She began using this UI feature while skimming through and clicking on detailed information back and forth to choose her preferred events and organizations. However, she found that clicking the back icon led her to the previous login process, adding to the time needed to become familiar with the app's navigation process and conflicting with her usage habits. This resulted in more time spent on redundant back-and-forth processes.

   Recommendation on Usability Revisement: 1) Check user flow, and fix the Go Back nod connection. 2) Do a few test runs, and check with the developer to see if there is a coding problem.

3. Frictions on Minor Features in the UI

   The participant specifically suggested adding a "Go to the Top" icon to the app, as the detail page contains a significant amount of information that requires users to scroll multiple times. Additionally, the participant noted that the image carousel feature does not work on some pages, emphasizing the need to improve the overall smoothness of usability.

   Recommendation on Usability Revisement: Add Go to the Top icon, and fix the image carousel

Valuable Features of NYU Engage

1. Filter feature

The participant expressed her appreciation of having a filter feature when finding organizations and attending events. It is also the most commonly used feature throughout the testing session.

2. Keyword Search

The participant frequently used the Keyword search bar located at the top of the interface. This feature stood out for its ease of use and speed, serving as the participant's preferred method for quickly accessing search results. However, a limitation of the keyword search was its restricted database, which occasionally led to a less-than-optimal user experience and confusion. For instance, when attempting to find communities or events related to the LTXD program, the participant separately entered "ECT," "LTXD," and "G4L," yielding no results in any of the responses.

Recommendation on Usability Revisement: 1) Expand the keyword search bar's database to include a broader range of terms and synonyms relevant to the LTXD program. 2) Implementing a feature that suggests alternative search terms when no results are found could help mitigate confusion and guide users to more relevant content. 3) Integrating a feedback mechanism where users can suggest new keywords to be added to the database would not only improve the search functionality but also engage users in the enhancement process.

Challenges using NYU Engage

Using NYU Engage should be a seamless and intuitive experience for students seeking to connect with their campus community. However, the current design presents several challenges that can hinder user engagement and satisfaction. These challenges, derived from an affinity diagram analysis, span from feature functionality to the clarity and accessibility of information.

Features

1. Difficulty in Discovering Categories

The participant struggles to find both activity and community categories, which can hinder their ability to engage with content that interests them.

Recommendation on Usability Revisement: Introduce a more intuitive categorization system, with visually distinct sections for activities and communities. Implementing dynamic filters could also help users customize their discovery process based on interests.

2. Collection and Favoriting Processes

There was no straightforward process to add activities or communities to a collection for future reference, and the absence of a favorite icon or feature (such as "add to STAR") could potentially limit the users' personalization of the app.

Recommendation on Usability Revisement: Add a "favorites" feature with an easy-to-identify icon, such as a star, to allow users to quickly bookmark and manage their interests. Consider integrating a 'collections' feature that compiles saved events and communities.

3. Desire for More Home Page Content

The participant wished to see more categories of events featured on the home page for easier access and discovery.

Recommendation on Usability Revisement: Re-evaluate the content strategy for the home page to include more event categories. A modular design with the ability to pin preferred categories or highlight upcoming events could enhance user experience.

4. Usability Concerns

The filter feature, while effective, stood out in a landscape of minor features that cause friction, such as forms lacking clear descriptions which lead to user confusion about their purpose.

Recommendation on Usability Revisement: For forms lacking clear descriptions, ensure that each field and its purpose are clearly labeled. Introduce tooltips or help icons to provide users with immediate guidance.

Information

1. Activity Descriptions Inadequate

Descriptions lacked specific activity schedules, key points, and actionable insights ("What can I get/learn?"), leaving the participant without a clear understanding of the event.

Recommendation on Usability Revisement: Develop a standardized template for activity descriptions to include schedules, learning outcomes, and key points. Highlighting these details will make it easier for users to assess the value and relevance of activities.

2. Keyword Search Limitations

The keyword search did not provide enough information, potentially due to a limited database or lack of updates, frustrating the participant when they cannot find relevant activities or communities.

Recommendation on Usability Revisement: Expand the search function's database and algorithm to include a wider range of terms, synonyms, and related phrases. Implement a "Did you mean?" suggestion feature to assist users when searches yield no results.

3. Organization Information Overload

The participant found that information related to organizations was often redundant and wordy, and lacked direct links to contact the people in charge or to engage in direct dialogue, which could hinder deeper involvement.

Recommendation on Usability Revisement: Streamline organization information by removing redundancies and focusing on concise, actionable content. Provide clear, direct contact options and real-time updates to facilitate engagement.

4. Hierarchy and Structure Issues

While the general information hierarchy was clear, and the structure of information was considered clear with useful previews showing locations, there was still room for improvement in presenting information in an organized, user-friendly manner.

Recommendation on Usability Revisement: Maintain a clear hierarchy and information structure while improving navigational cues. Present information in bite-sized, digestible formats, and offer quick links back to top-level categories for efficient browsing.

Reflections and Improvements

1. Observation Form Modification

I expanded my observation form because while doing my observation, I found there was not enough space for me to take notes. Also, the participant's answer can be categorized into different types such as compliments, confusion, and suggestions, in order to prevent further readability and recognition issues, I specifically listed categorized notes and comment sections.
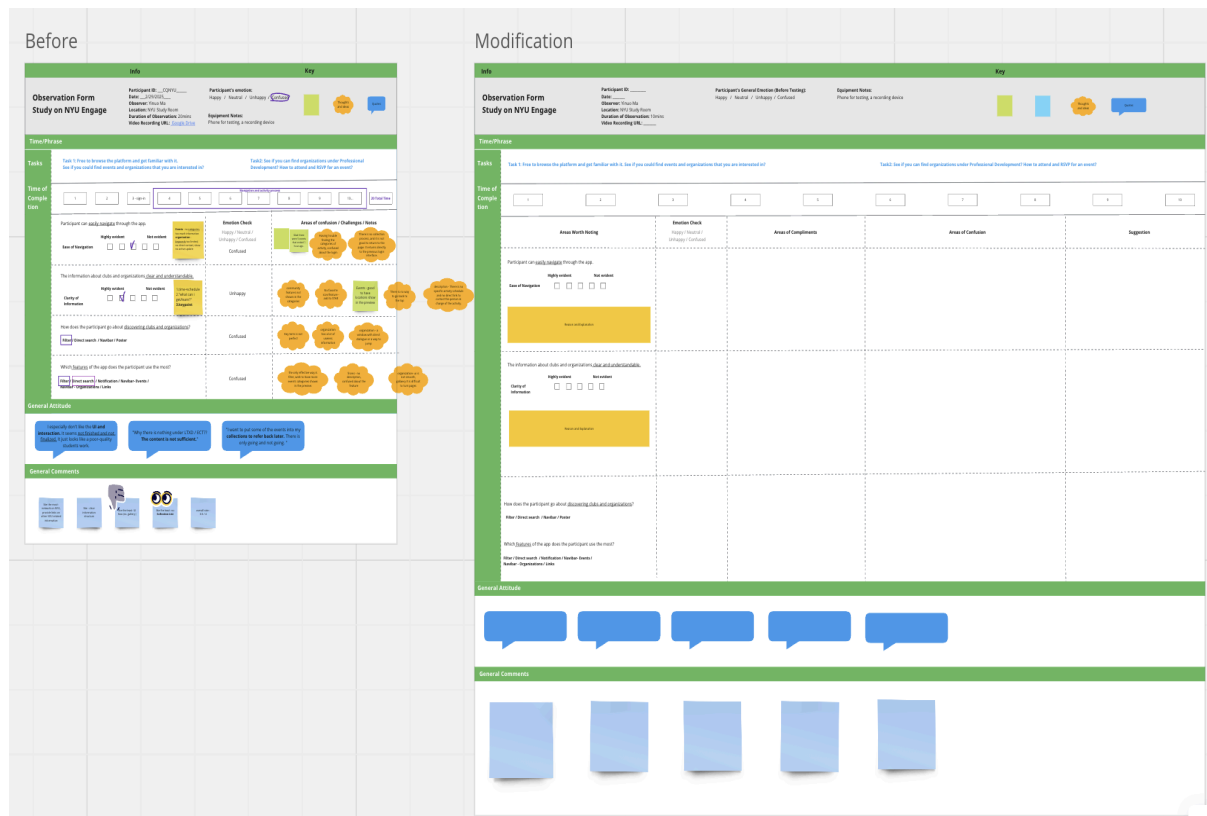
2. Observation Procedure Modification

The observation process took twice the amount of time than I expected, therefore, given the time constraint, I revised and rewrote the detailed observation procedures. Several issues I found after giving the testing session: 1) the purpose explaining phrase took about 1 minute, this can be done beforehand of the study session. 2) The participant tended to navigate the app after finishing with one task, it was necessary to note them and take the session forward as a researcher.

3. Data Analysis Plan Modification

I added a detailed analysis plan, including sorting notes in the affinity diagram and areas to look for data in the video recordings. The original plan I had was at a very early stage of my observation and lacked concern in the holistic user journey, focusing narrowly on isolated tasks without considering the broader context of user interaction. This revised plan broadens the scope of inquiry, aiming to capture the full range of user experiences – from first encounters with the app to the completion of tasks and long-term engagement. Specifically, I added creating a timeline of the participant's emotional changes throughout the engagement with the app while revisiting the video recordings. It is because this will provide insight into the emotional journey of the user, helping to pinpoint specific features that trigger positive or negative responses. By examining user behavior in conjunction with direct feedback, the plan now includes a view of the

usability challenges and areas for potential enhancement. It is designed to identify not just what features need improvement, but how these changes can contribute to a more cohesive and satisfying user experience overall.